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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/655,576	09/06/2000	Lambert Haner	28870	9923

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EXAMINER

JONES, JUDSON

ART UNIT PAPER NUMBER

2834

DATE MAILED: 05/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/655,576

Applicant(s)

HANER, LAMBERT

Examiner

Judson H. Jones

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 is/are allowed.
- 6) ☒ Claim(s) 9-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 9 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugita et al. in view of Pengov et al. Sugita et al. discloses the single phase induction electric motor with windings for producing an AC electric field vector but does not disclose the rotor having a construction by which it increases the reluctance in the magnetic field when it has an angular orientation out of alignment with the magnetic field vector. However, Pengov et al. teaches in column 7 lines 16-21 that the rotor of a variable reluctance motor is urged toward a minimum reluctance, maximum inductance position. Since Pengov et al. and Sugita et al. are both from the same field of endeavor (see Electromechanics and Electric Machines by S. A. Nasar and L. E. Unnewehr page 7 which states, "Like the reluctance configuration, the inductor and flux-switch configurations operate on a variable reluctance principle.") it would have been obvious for one of ordinary skill in the art to have configured the rotor of Sugita et al. to seek a minimum reluctance, maximum inductance position.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. in view of Dade et al. Kim et al. discloses a controller circuit for an AC motor with a plurality of switches that generate separate power signals having variable signals as described in column 1 lines 11-21. Kim et al. does not disclose these signals varying in a cyclic manner. However, according to Dade et al. column 2 lines 39-53, most torque variation is a repeatable function of motor position and pulse width should vary according to motor position. See also Kim et al.

Art Unit: 2834

column 4 lines 35-43. Although Kim et al. does not disclose the signals varying in a cyclic manner, the signals would inherently vary in that manner.

***Allowable Subject Matter***

Claims 1-8 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not disclose or teach an AC electric motor having an electrically continuous conductive loop, the loop having longitudinal portions and shunt portions and the motor also comprising a stator with at least two windings selectively energized and de-energized with separate AC currents so that the AC field vector induces an AC current in the conductive loop as recited in claim 1.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Iijima et al. discloses the use of three-phase induction motors in industrial machines with the motors being simply connected to three-phase power sources. Hill et al. discloses a winding for a rotor having an electrically conductive loop having longitudinal portions spaced apart from and generally parallel to the axis and shunt portions extending between the ends of the longitudinal portions. However, no reason has been found for combining the teaching of Hill et al. with either the Iijima et al. or the Kim et al. reference.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judson H Jones whose telephone number is 703-308-0115. The examiner can normally be reached on 8-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 703-308-1371. The fax phone numbers for the


Application/Control Number: 09/655,576

Page 4

Art Unit: 2834

organization where this application or proceeding is assigned are 703-305-3431 for regular communications and 703-305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

JHJ   
April 29, 2002

  
NESTOR RAMIREZ  
SUPERVISORY PATENT EXAMINER  
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